MULTIMEDIA **UNIVERSITY** STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2017/2018

BIC1014 – INFORMATION SYSTEMS CONCEPTS
(All sections / Groups)

12 MARCH 2018
2.30 p.m – 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of 7 pages with 2 sections.

2. Attempt **ALL** questions in section A and section B. The distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

SECTION A: MULTIPLE CHOICE QUESTIONS [20 marks]

1. The first step in the model of business problem solving is:

    a. Interviewing the people involved in the problem.
    b. Outlining the problem's causes.
    c. Identifying the problem.
    d. Assigning the problem to a problem solver.

2. You are a new manager at a plumbing supply manufacturer where there are an unusually high number of returns for a new aerator used in the production of high-end faucets. In examining the problem you determine that the primary cause is the improperly designed die cast for the aerator. Which dimension of a business problem does this reflect?

    a. People
    b. Technology
    c. Management
    d. Organizational

3. Which of the following is a global network that uses universal standards to connect millions of different networks around the world?

    a. An extranet
    b. The World Wide Web
    c. The Internet
    d. An intranet

4. The culture of UPS places service to the customer among the company's highest business objectives, which is reflected in their use of information systems to enable customer tracking of their packages. Why is "culture" an important factor to consider when building information system solutions to business problems?

    a. Culture is one element that can be radically changed, not always for the better, by new information systems.
    b. Culture affects how information system solutions are implemented and used.
    c. Culture is a cauldron of employee perspectives and conflicts, which can be used to improve business processes.
    d. Culture is the driving force behind decision making and innovation.

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5. Inadequate database capacity is an example of the _____ dimension of business problems.

    a. people
    b. organizational
    c. technology
    d. management

6. A firm that invests in an information system because it is a necessity of doing business does so because it is seeking to achieve which of the following business objectives?

    a. Survival
    b. Improved decision making
    c. Competitive advantage
    d. Operational excellence

7. Walmart exemplifies the power of information systems coupled with excellent business practices and supportive management to achieve which of the following?

    a. Operational efficiency
    b. Customer intimacy
    c. Competitive advantage
    d. Survival

8. Which of the following would *not* be considered part of the implementation phase of problem solving?

    a. Change management
    b. Purchasing hardware for an information systems solution
    c. Training an employee on new systems software
    d. Evaluating a selection of software packages for implementing a new business process

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9. Which of the following statements is *not* true?

    a. The most common and successful offshore outsourcing projects involve production programming and system maintenance programming work, along with call center work.

    b. Inflation in Indian wages for technology work is leading to a counter movement of some IT jobs back to the United States.

    c. The fear that offshore outsourcing will reduce demand for new information system hires in the United States is mitigated by the fact that reduced IT expenditures results in increased IT investments and the creation of domestic jobs.

    d. The impact of domestic IT outsourcing has been very disruptive to some regional areas of the United States.

10. Which of the following is an important skill for a marketing major?

    a. An understanding of online transaction and reporting systems
    b. An understanding of product management enterprise systems
    c. An understanding of supplier management enterprise systems
    d. An understanding of enterprise systems that enhance leadership

11. Identifying potential customers for the businesses' products or services is an activity associated with the _____ function.

    a. finance and accounting
    b. human resources
    c. manufacturing and production
    d. sales and marketing

12. Key forces in a business's immediate environment include:

    a. stockholders.
    b. technological innovations.
    c. economic conditions.
    d. politic conditions.

13. Which of the following is *not* a true statement with respect to business processes?

    a. Every business can be seen as a collection of business processes.
    b. Analyzing business processes can enable you to achieve a clear understanding of how a business actually works.
    c. The efficiency of a business firm is not related to its business processes.
    d. Information systems can automate many steps in business processes that were formerly performed manually.

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14. Which of the following systems are especially suited to situations in which the procedure for arriving at a solution may not be fully predefined in advance?

    a. Management Information System
    b. Transaction Processing System
    c. Decision Support System
    d. Knowledge Management System

15. What is the most important benefit of an enterprise application?

    a. Enabling business functions and departments to share information
    b. Enabling a company to work collaboratively with customers and suppliers
    c. Enabling cost-effective, e-business processes
    d. Enabling managers to make better decisions

16. You manage the Information Systems department at a small startup Internet advertiser. You need to set up an inexpensive system that allows customers to see real time statistics, such as views and click-throughs, about their current display ads. Which type of system will most efficiently provide a solution?

    a. CRM
    b. Enterprise system
    c. Extranet
    d. Intranet

17. You have been hired by Inspiration Inc. to help improve its profit margin. Inspiration Inc. is a business communications consulting firm that services many clients in different industries throughout the world. The firm provides its clients with customized written recommendations about how to best use the client's existing resources to improve the client's internal communications. The company has approximately 100 consultants, all of whom are located in its central headquarters in Chicago. What system do you recommend to improve Inspiration Inc.'s business processes and increase its profit margin?

    a. Extranet, to enable quick collaboration via the Internet, minimize the time spent communicating with the client, and minimize the amount of paperwork needed
    b. Customer Relationship Management, to maintain easily accessible customer records to minimize the time spent looking for client data
    c. Knowledge Management System, to minimize redundant work on similar clients
    d. Video conferencing system, to improve collaboration

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18. Which of the following statements is *not* true about collaboration in a business setting?

    a. Collaboration may be a short-lived activity, lasting just a few minutes.
    b. Collaboration is a many-to-many activity as opposed to a one-to-one or one-to-many activity.
    c. Meaningful collaboration requires a supportive business firm culture and the right, decentralized structure.
    d. The evidence of the business benefits of collaboration is largely anecdotal.

19. Which of the following Google tools allows people to engage in group video chat?

    a. Google Drive
    b. Google Docs
    c. Google Circles
    d. Google Hangouts

20. _____ technology allows a videoconference participant to give the appearance of being present at a location other than his or her true physical location.

    a. Telepresence
    b. Virtual reality
    c. Screen sharing
    d. Virtual world

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SECTION B: STRUCTURED QUESTIONS [80 marks]

QUESTION 1

a) Total quality management (TQM), making quality control everyone's responsibility, relies on an information system that supplies workers and management with the data necessary to improve products and drive down costs. Discuss the **FOUR (4)** ways companies can use information systems to achieve total quality management.

(8 marks)

b) You are starting an Internet marketing and data mining company. List **SIX (6)** types of software that you can anticipate needing, and what will these types of software be used for?

(12 marks)

(Total: 20 marks)

QUESTION 2

a) Define the term 'relational database'. Identify and describe the **THREE (3)** basic operations used to extract useful sets of data from a relational database with illustration.

(10 marks)

b) What are the **TWO (2)** types of signals used to communicate a message in a network and how are they different? What device converts one type to the other type?

(10 marks)

(Total: 20 marks)

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QUESTION 3

a) Define computer crime. Provide **TWO (2)** examples of crime in which computers are targets and **TWO (2)** examples in which computers are used as instruments of crime.

(10 marks)

b) The introduction of e-commerce has benefitted individuals and businesses from various sector. List and describe the **FIVE (5)** unique features of e-commerce.

(10 marks)

(Total: 20 marks)

QUESTION 4

a) Businesses are beginning to use data generated by wireless sensors, radio frequency identification tags, and monitoring devices to improve their business activities through operational intelligence. Special software programs let organizations analyze all of the big data collected to help managers make better decisions. Managers can even use data generated in real-time to improve their operations.

(i) What is big data? How does it provide business value?

(4 marks)

(ii) How is big data being utilized by local governments?

(6 marks)

b) What is ethical issues? Discuss at least **FOUR (4)** key technology trends that raise ethical issues. Give an example of an ethical or moral impact connected to each one.

(10 marks)

(Total: 20 marks)

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